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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,434	11/15/2000	Edwin X. Graf	VOI0164.US	3225

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EXAMINER	
JAGAN, MIRELLYS	
ART UNIT	PAPER NUMBER
2859	8

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/713,434	GRAF ET AL.
	Examiner	Art Unit
	Mirellys Jagan	2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *06 June 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 5 and 8-11 are objected to because of the following informalities:

Claims 5, 8, and 10: There is lack of antecedent basis in the claim for "the support" in lines 2, 2, and 3, respectively.

Claim 11: There is lack of antecedent basis in the specification for the system having a pressure transducer in addition to the sensor already claimed in claim 1.

Claim 9 is objected to for being dependent on an objected base claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-11, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,306,258 to Lange et al [hereinafter Lange] in view of U.S. Patent 5,562,027 to Moore.

Lange discloses a press system for a paper web disposed to travel between an upper material and lower material (belts), the system having:

a support roll positioned underneath the web, and

a press apparatus having:

a pressure body, the pressure body and the support roll defining a nip therebetween, the pressure body having leading and trailing arms with a seal mounted on a distal end of each arm for contacting the upper material in nipping engagement over the support roll surface, wherein the upper material is interposed between the paper web and the pressure body of the press apparatus and the seal has an outer surface contoured to conform with the support roll by having a radius of curvature at least as large as the radius of curvature of the support roll surface, the support roll comprising a rotatable support roll having a cylindrical support surface,

an air chamber for applying pressurized air to the upper material,

a frame moveably supporting the pressure body,

an actuator comprising at least one flexible tube operatively disposed between the frame and the pressure body for moving the pressure body toward and away from the support roll by expanding and contracting with pressurized air to control the nip pressure, and

a controller that controls the pressure at the nip (a pressure sensor must be inherently present in order for the controller to control the pressure) by changing the amount of pressurized air in the actuator to cause the actuator to move the pressure body toward or away from the support roll, thereby controlling the pressure at the nip between the pressure body and the support roll.

Lange does not disclose the upper and lower materials surrounding the paper web as being a belt and a felt, respectively, the sensor comprising a transducer, the sensor being

mounted in one of the seals of the press apparatus or the support roll to produce a signal indicative of a pressure on the web as the web is passed through the nip adjacent the sensor, and the controller being linked to the sensor to determine the width of the nip as a function of the pressure sensed by the sensor.

Moore discloses a nip width-determining system for a paper web press, the system having:

a sensor mounted in a press apparatus for producing a signal indicative of a pressure on the paper web as the paper web is passed through the nip, and

a controller linked to the sensor for determining the width of the nip as a function of the pressure sensed by the sensor, and causing an actuator of the press apparatus to adjust the press apparatus to control the nip width based on the determined nip width. The nip of the press apparatus is formed between two rolls, wherein the sensor is mounted in one of the rolls.

Moore discloses that placing a pressure sensor in a nip of a press apparatus is beneficial since it allows a pressure and a nip width measurement to be obtained while the press is running. This allows the nip width of the press apparatus to be adjusted during operation of the press apparatus, thereby reducing downtime (see figures 1 and 3B, column 4, lines 45-65, column 5, line 67-column 6, line 1).

Referring to claims 1 and 16, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system disclosed by Lange by using the pressure sensor in the support roll, as disclosed by Moore, in order to obtain nip pressure measurements while the press is running to reduce downtime.

Referring to claims 4, 10, and 16, Lang and Moore disclose that the pressure sensor should be positioned so as to be located in the nip in order to obtain a pressure measurement as the web travels through the nip. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to change the location of the sensor from the location disclosed by Lange and Moore to a location in the seal of the pressure body, since the seal of the pressure body forms the nip of the press, which Lange and Moore disclose to be a desirable location for a pressure sensor.

Referring to claims 2, 4, 7, 8, 10, 16, and 17, the particular type of material used to make the upper or lower materials, absent any criticality, is only considered to be the use of a "preferred" or "optimum" material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have been able to provide based on the intended use of applicant's apparatus, i.e., suitability for the intended use of applicant's apparatus, which in this case is to allow the paper web to dry. See ***In re Leshin***, 125 USPQ 416 (CCPA 1960), where the courts held that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious.

Referring to claims 3, 10, and 11, Lange and Moore disclose a press system having a pressure sensor for measuring pressure. The use of the particular type of pressure sensor claimed by applicant, i.e., a transducer, absent ant criticality, is considered to be nothing more than a choice of engineering skill, choice, or design, because the use of the particular sensor claimed by applicant considered to be the use of numerous and known alternate types of pressure sensors that a person having ordinary skill in the art at the time the invention was made would have been

able to provide using routine experimentation in order to sense pressure in a press system as already suggested by Lange and Moore.

4. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore.

Moore discloses a sensing system that measures a nip width between a deflection roll and a support roll through which a composite web comprising a paper web disposed on a material travels, the system having:

a controller,

a pressure source,

a controlled deflection roll (crown roll, which have a center shaft, a hollow roll shell disclosed for rotation about the shaft, and a plurality of shoes mounted on the shaft for applying pressure to the roll shaft),

a support roll mounted opposite of the deflection roll beneath the deflection roll and the web, and forming a nip with the deflection roll,

a plurality of sensors mounted in the deflection roll longitudinally of the deflection roll for measuring the nip pressure, the sensors linked to the controller to provide signals indicating the width of the nip at corresponding locations based on the pressure measurement from the sensors,

the pressure source is linked to shoes of the deflection roll for providing power to move the shoes,

the controller is linked to the pressure source to actuate individual shoes responsive to the signals received from the sensors.

Moore does not disclose the sensors being transducers and the nip through which the web passes being formed by the deflection roll being located beneath the support roll.

The use of the particular type of pressure sensor claimed by applicant, i.e., a transducer, absent ant criticality, is considered to be nothing more than a choice of engineering skill, choice, or design, because the use of the particular sensor claimed by applicant considered to be the use of numerous and known alternate types of pressure sensors that a person having ordinary skill in the art at the time the invention was made would have been able to provide using routine experimentation in order to sense pressure in a press system as already suggested by Moore.

Furthermore, changing the location of the deflection roll from the location shown by Moore to a location below the support roll and the web, i.e., inverting the deflection roll and the support roll such that the deflection roll is positioned below the support roll, absent any criticality, is only considered to be an obvious modification of the press disclosed by Moore that a person having ordinary skill in the art at the time the invention was made would have been able to provide using routine experimentation since the courts have held that there is no invention in shifting the position if the operation of the device would not be thereby modified. See ***In re Japikse***, 86 USPQ 70 (CCPA 1950). In this case, the operation of the press disclosed by Moore will not be modified by inverting the deflection roll and the support roll such that the deflection roll is positioned below the support roll, since Moore discloses that the deflection roll may be positioned in other positions relative to another roll(s) as long as a nip is formed between the rolls, as shown in figure 2D.

Response to Arguments

5. Applicant's arguments filed 1/2/03 have been fully considered but they are not persuasive.

Applicant's arguments that Lange and Moore do not disclose a support roll that is positioned underneath the paper web, and a sensor mounted in one of the press apparatus or support roll, see page 8, are not persuasive since Lange discloses a support roll (124) that is positioned underneath a paper web in figure 2, and Moore discloses a roll (2) having a sensor mounted in the roll in figure 3B and column 5, line 66-column 6, line 1, where Moore teaches rolls are often comprised of multiple layers and the sensor can be embedded in the layers.

6. Furthermore, applicant argues that Moore fails to disclose the claimed invention because Moore discloses that the sensors are placed on a roll that is positioned above the web and not in a support roll underneath the web, as claimed. This argument is not persuasive since, in the rejections, Lange is used as the main reference teaching this feature, i.e., a support roll underneath the web, wherein the support roll of Lange is modified to have a sensor therein as is taught by Moore in figure 3B and column 5, line 66-column 6, line 1, where Moore teaches rolls are often comprised of multiple layers and the sensor can be embedded in the layers. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See ***In re Keller***, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); ***In re Merck & Co.***, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

7. In response to applicant's argument that there is no suggestion or motivation to combine the press of Lange with the sensor of Moore, see page 9, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See ***In re Fine***, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and ***In re Jones***, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Lange discloses that a controller controls the pressure at the nip, which indicates that it is necessary that the pressure at the nip be known in order for the controller to control it. Moore discloses a pressure sensor is useful for measuring the pressure at the nip so that a controller can control the pressure at the nip by utilizing the pressure measurement. Therefore, the motivation to combine Lange with Moore is that Lange needs to provide a pressure measurement at the nip of the press and Moore provides a pressure sensor for providing a pressure measurement at the nip of a press.

8. Applicant's arguments that placing the sensors disclosed by Moore on the shoe of Lange will destroy the Lange reference are not persuasive because the rejections are based on the sensor being placed in the shoe.

9. Applicant's arguments with respect to claims 12-15 are not persuasive. First, applicant's arguments with respect to the position of the support roll of Moore being beneath the web, see page 10, have been considered but are moot in view of the new ground(s) of rejection. Second, applicant's arguments that Moore does not disclose a sensor in the roll are not persuasive Moore

discloses a roll (2) having a sensor mounted in the roll in figure 3B and column 5, line 66-column 6, line 1, where Moore teaches rolls are often comprised of multiple layers and the sensor can be embedded in the layers.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and publication disclose presses:

U.S. Patent 6,485,612 to Graf

U.S. Patent Application Publication 2002/0060018 to Lindsay et al

U.S. Patent 4,559,106 to Skyttä et al

U.S. Patent 6,419,793 to Beck

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 703-305-0930. The examiner can normally be reached on Monday-Thursday from 8AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 703-308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7725 for regular communications and 703-308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

mj
February 27, 2003

Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800